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ABSTRACT

The purpose of this study was to correlate parent-child attitudes toward the fine arts. A respondent group was selected from University faculty families to complete a questionnaire based upon the Eisner Art Attitude Inventory. Five hypotheses were tested: (1) A significant positive correlation exists between parents and their children's attitudes toward the fine arts; (2) The older children's attitudes will have a lower correlation with their parents' attitudes than the younger children; The parents in the physical science category are more conservative in their art attitudes than those in the social sciences; (4) Mothers' and daughters' attitudes will be more liberal than those of fathers and sons; and (5) Children's attitudes will be more liberal than those of their parents. The following areas were included in the questionnaire: satisfaction and voluntary activity in art, self estimate of ability in art, and attitude toward art and artists. The t test was used to determine significance of correlations. Findings include: (1) Parents and children correlated insignificantly at all levels; (2) The age level of children does not significantly affect correlations; (3) More liberal art attitudes exist among professors and their families in the social sciences; (4) Mothers and daughters had more favorable art attitudes than fathers and sons; and (5) Parents in the social sciences had more favorable attitudes than their children, but children in the physical sciences had more favorable attitudes than their parents. (CK)

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A COMPARATIVE ANALYSIS OF PARENT-CHILD
ATTITUDES TOWARD THE FINE ARTS

BY

DONNA PAULER

B.S., Kansas State Teachers College, 1964

A Thesis
Submitted to the Faculty of
The University of Mississippi
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The University of Mississippi

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INTRODUCTION

THE PROBLEM: LIMITATIONS AND ASSUMPTIONS

Educators and psychologists have always been concerned with the formulation of a child's attitudes. Only a small amount of research has been conducted in the area of attitudes toward art. In order to make the most of art education it is important to know the attitudes a student brings to an art class, how these attitudes were acquired, and how they might be changed.

The purpose of this study was to correlate parental-child attitudes toward the fine arts. A respondent group was selected from University of Mississippi faculty families to complete a questionnaire based upon the Eisner Art Attitude Inventory. The questionnaire is designed to determine the respondent's voluntary activity, satisfaction, self-appraisal, and attitude involving art and artists. The family respondents were divided into physical science and social science categories. The children in the family were subdivided into three groups according to the following levels: intermediate, junior high, and high school. No children below the fourth grade were tested because of the obvious difficulty in ascertaining attitudes of children at this age through a questionnaire.

The questionnaire was mailed out to each professor and instructor at the University of Mississippi who had children of the appropriate school age. Each member of the family was asked to complete a form individually and to return it in an enclosed self-addressed, postage paid envelope.

The following hypotheses were tested:

1. A positive and significant correlation exists between parents and their children's attitudes toward the fine arts.
2. The older children's attitudes will have a lower correlation with their parents' attitudes than the younger children.
3. The parents in the physical science category are more conservative in their art attitudes than those in the social sciences.
4. Mothers' and daughters' attitudes will be more liberal than those of fathers and sons.
5. Children's attitudes will be more liberal than those of their parents.

SIGNIFICANCE OF PROBLEM

Many studies have been made in the field of social attitudes such as racial, political, and institutional, but few have been made in the area of aesthetic attitudes. Since it appears that many people have false and unfavorable attitudes toward the fine arts and artists, it seems appropriate to analyze the causative factors in order to make recommendations as to how these attitudes might be changed.

Children generally formulate their basic attitudes early and carry them into adulthood. Parents appear to be the single greatest influence in formulating these early attitudes.

By understanding the extent parents influence the formulation of aesthetic attitudes in their children, educators, psychologists, artists, and other professional people can better know how to create positive attitudes and ideas.

LIMITATIONS AND ASSUMPTIONS

This study was limited to a selected group of faculty members and their children at the University of Mississippi, Oxford, Mississippi. Because of this defined group, the study primarily reflects localized aesthetic attitudes. Furthermore, the features of the community in which the subjects live, i.e., one museum, no art courses in the public school system, and generally traditional atmosphere, set constraints on artistic attitudes.

Due to the subjective nature of a person's attitude, it is difficult to determine how accurately it is reflected through a questionnaire. People may have answered the questionnaire on the basis of what they thought was expected rather than their true feelings. Unless a person was interested in art, he may not have responded. Thus a certain limited bias is generally present in any questionnaire. In order to have obtained accurate attitudes from the children they should have answered the questionnaire separately from their parents; however, the younger children probably needed their parents to interpret the questions for them.

The questionnaire is an assessment of the respondents' perception of voluntary activity, satisfaction, self-estimate, and attitude toward art. There is no standardized scale for quantifying the various responses, e.g., "very often." A subject may attend a museum twice a year, and to him this may mean "very often," while to another person it may mean "seldom." Also the total score on the questionnaire is obtained from item scores which would tend to distort the response of a person making sculpture "very often" at home, while seldom engaging in other art activities, i.e., this may mean a lower score than one for a person who "occasionally" engages in most or all of the activities listed in sub-test II. The test has been checked for reliability and validity to determine the accuracy of the various responses.

Even though there are many limitations to the questionnaire, results may be evaluated to give a fairly accurate assessment of the respondents' art attitudes.

The father's position, unless the mother was the only adult member of the family, determined placement of families in the physical science or social science group. Mothers, employed by the university as professors as well as their husbands, were still classified by their husbands' position even though they might be in a different group.

RESEARCH PROCEDURES

The individual subjects selected for this study were instructors, assistant professors, associate professors, and professors who had children between the ages of eight and eighteen. The list was compiled from personnel records of the University of Mississippi.

For the actual conduct of the questionnaire, the subjects were divided into two groups: the physical science group and the social science group. Table 1 shows the distribution of the families by major subject who asked to participate in the study and the number of each group that returned the questionnaires. The physical science group consisted of 66 families, with a total of 122 children, of whom 45 percent responded. There were 85 families in the social science group with a total of 163 children, of whom 52 percent responded.

Total results show that 64 fathers responded, of whom 25 were in the physical science group and 34 in the social science group. Also, 67 mothers responded, of whom 28 were in the physical sciences and 34 in the social sciences. Families were classified according to university employment of the adult member with first consideration given to the father, i.e., according to the father's teaching field unless the mother was the only adult member of the family employed by the university. A total of 115 children responded, of whom 47 were in the physical science group and 68 in the social science group. Of the 47 in the physical science group, 21 were boys. In the social science group 37 were boys. Table 2 shows the number of respondents within each group according to age and sex.

Information was received from a questionnaire developed from the Eisner Art Attitude Inventory. Enclosed with each questionnaire was a postage paid, addressed envelope for convenience of its return. One month after the questionnaires were mailed, telephone calls were made to all of the families, as a follow-up procedure, in order to increase the number of returns. These calls also created an opportunity for the families to ask questions and/or voluntarily explain reasons for a non-response. As a result of the follow-up procedure, the percentage of returned questionnaires was increased from 33 percent to 48 percent. Classified according to groups, this resulted in an increase from 20 percent to 45 percent for the physical science group and an increase from 38 percent to 52 percent for the social science group. All questionnaires were accepted from late March through April, 1969. Calls were made the first week in May, giving an additional week for responses.

TABLE 1
DISTRIBUTION OF FAMILIES BY MAJOR SUBJECTS

Physical Science	Sent	Rec'd.	Social Science	Sent	Rec'd.
Accountancy	3	0	Business Management and Administration	5	0
Biology	6	0	Economics	7	5
City Planning	1	0	Education	12	9
Chemistry	4	2	English	7	5
Data Processing	1	0	History	2	0
Engineering			Journalism	3	2
Chemical	2	2	Languages	5	2
Mechanical	3	3	Law	11	4
Electrical	3	2	Military	9	7
Civil	2	2	Marketing	1	1
Geology	2	2	Music, Theory	5	1
Home Economics	2	2	Philosophy	2	0
Library Science	2	1	Political Science and Government	6	2
Mathematics	5	2	Psychology	3	1
Pharmacy	17	5	Sociology, Anthropology	4	0
Physical Education and Health	10	5	Speech	3	1
Physics	3	2		85	
	<u>66</u>				
Total received					
Before calls		13/			33/
After calls		30			44
Percentage response					
Before calls		20/			38/
After calls		45			52

Although a limited amount of significance may be associated with the unreturned questionnaires, data quantification of those returned would not be appreciably affected; therefore, final results and evaluations are considered to be based on a true representative sample of the selected groups.

The questionnaire provided a very feasible method for collecting required data from both parents and children and allowed a period of time for accurate completion. A primary source of motivation for completing the questionnaire was the personal telephone call which was made to each family. Because of its personal nature, the telephone call was selected as the most suitable follow-up procedure.

A closed form of questionnaire was used for ease in data tabulation and analysis.

Methods of evaluation were determined from the Eisner Art Attitude Inventory. The following areas were selected for inclusion in the questionnaire since they represent the most important aspects of an individual's disposition toward the fine arts:

1. Satisfaction in art
2. Voluntary activity in art
3. Self estimate of ability in art
4. Attitude toward art and artists.

The question response selections were scored from one to five with the most positive response assigned the lowest value, e.g., respond one considered most favorable. Since a total of 60 selections may be made, a maximum score would be 300 and a minimum would be 60.

Reliability and validity are confirmed by the Eisner Art Attitude Inventory. The Kuder-Richardson 20 Formula was used to check reliability, which resulted in a .934 reliability.¹ Reliability coefficients throughout the eight grade levels tested ranged from .908 to .952. The formula measures the test's internal consistency and not the stability as obtained through two or more testings of the same population. It is best used when a test measures just one ability. Concurrent validity for the attitude inventory is confirmed as a result of a representative sample which shows that high school students interested in art receive higher scores than those who were not so interested. This also indicated the usefulness of the inventory for discriminating among groups that differ in their interest in art. Although Eisner limited the use of his inventory to grades nine and above, grades four through twelve were used for this study. A reliability check was made for ~~grades~~ grade eight and the entire inventory is based on a sixth grade reading level. Although it was anticipated that certain questions would have to be clarified by parents for the youngest children, there is no apparent indication that final results were adversely affected by this.

When the questionnaires were received, scores were tabulated and recorded on master sheets according to the following classifications:

¹Lee J. Cronbach, Essentials of Psychological Testing (New York: Harper and Brothers, Publishers, 1949), p. 68.

TABLE 2
NUMBER OF RESPONDENTS IN PHYSICAL SCIENCE
AND SOCIAL SCIENCE GROUPS

Classification	<u>Physical Science</u>		<u>Social Science</u>	
	Before Calls	After Calls	Before Calls	After Calls
Fathers	10	25	27	34
Mothers	11	28	29	34
Boys--Intermediate	5	13	12	14
Girls--Intermediate	3	11	13	14
Boys--Junior High	2	5	11	14
Girls--Junior High	6	9	8	9
Boys--High School	2	3	7	9
Girls-- High School	4	6	5	8

1. Fathers in the physical science group.
2. Fathers in the social science group.
3. Mothers in the physical science group.
4. Mothers in the social science group.
5. Boys and girls (age sixteen through eighteen) in the physical science group.
6. Boys and girls (age sixteen through eighteen) in the social science group.
7. Boys and girls (age twelve through fifteen) in the physical science group.
8. Boys and girls (age twelve through fifteen) in the social science group.
9. Boys and girls (age eight through eleven) in the physical science group.
10. Boys and girls (age eight through eleven) in the social science group.

Scores were totaled for each category within each group. Correlations were made between the two groups utilizing all classifications.

Upon completion of data compilation a correlation coefficient was used to determine the relationship between the parents' mean score on the questionnaire and their children's mean score. A t test was performed to determine if the relationship was significant.² Also, a t test was carried out to find if the following mean scores had a significant difference:³

1. those between parents in the physical sciences and in the social sciences
2. those between children in the physical sciences and in the social sciences
3. those between fathers and mothers in both groups
4. those between boys and girls in both groups
5. those between fathers and boys in both groups
6. those between mothers and girls in both groups.

RESULTS OF THE DATA

This investigation sought to determine if a significant correlation existed between parents and their children toward the fine arts. All information was collected from questionnaires mailed to professors and their families at the University of Mississippi. Families were selected which had children between the ages of eight and eighteen. The questionnaires were scored according to a sixty item scale, with a value of one, two, three, four, or five points assigned to each item. Thus the maximum score could be 300, the minimum score 60.

²Robert H. Koenker, Simplified Statistics (Bloomington, Illinois: McKnight and McKnight Publishing Company, 1961), p. 60.

³Ibid., p. 87

TABLE 3
MEAN SCORES, MEDIAN AND RANGE IN THE PHYSICAL
SCIENCE AND IN THE SOCIAL SCIENCE GROUPS

Group	Number	High	Low	Median	Mean
<u>Physical Science</u>					
Fathers	25	213	95	151	155.52
Mothers	28	239	95	163	161.59
High School Boys	3	148	43	148	113.00
High School Girls	6	162	131	152	148.83
Junior High Boys	5	207	103	182	164.00
Junior High Girls	9	247	144	203	207.33
Intermediate Boys	13	212	126	180	182.62
Intermediate Girls	11	240	76	181	176.64
Total Boys	21	212	43	181	168.23
Total Girls	26	247	76	182	180.80
<u>Social Science</u>					
Fathers	35	244	82	178	174.06
Mothers	35	268	120	186	194.43
High School Boys	9	188	93	149	149.22
High School Girls	8	229	137	182	209.43
Junior High Boys	14	229	103	159	161.93
Junior High Girls	9	235	140	185	184.56
Intermediate Boys	14	246	101	195	187.21
Intermediate Girls	14	249	105	198	190.21
Total Boys	37	246	93	171	168.38
Total Girls	31	249	105	192	186.83

The questionnaires were classified in the following groups:

1. Fathers, Physical Science
2. Mothers, Physical Science
3. High School Boys, Physical Science
4. High School Girls, Physical Science
5. Junior High Boys, Physical Science
6. Junior High Girls, Physical Science
7. Intermediate Boys, Physical Science
8. Intermediate Girls, Physical Science
9. Fathers, Social Science
10. Mothers, Social Science
11. High School Boys, Social Science
12. High School Girls, Social Science
13. Junior High Boys, Social Science
14. Junior High Girls, Social Science
15. Intermediate Girls, Social Science.

The means from each of these groups ranged from 113.00 to 209.43. (See Table 3.) The high school girls in the social sciences received the highest mean. The lowest mean was for the high school boys in the physical sciences. Except for intermediate girls in the physical sciences, all female groups had higher means than comparable male groups. Within the various levels female groups obtained the highest scores on the questionnaires. Except for intermediate boys in the physical sciences, all male groups obtained the lowest scores on questionnaires (see Table 3). This indicates a sexual bias in favor of girls and mothers before any correlations were made. This agrees with the results of the Eisner Inventory.

Once all questionnaires were tabulated and group means were determined, correlations were computed. Since it was the primary objective of this paper to correlate parental-child attitudes toward the fine arts, all children, regardless of level, were correlated with their parents in each of the two classifications (physical science and social science). See Table 4 for correlations.

TABLE 4
CORRELATIONS BETWEEN PARENTS AND CHILDREN IN THE
PHYSICAL SCIENCE AND THE SOCIAL SCIENCE GROUPS

Group	Number			Correlation	Significance	
	Chil- dren	Parents	Used		t	p
Physical Science Children vs Parents	47	53	50	-.2639	1.802	.10
Social Science Children vs Parents	68	70	50	.0396	.227	.80

Since there was a different number of children than parents in each classification, a set number of cases was determined in order to make the correlations. Over 50 questionnaires were collected in three groups; parents in the social sciences, children in the social sciences, and parents in the physical sciences. For children in the physical sciences, 47 questionnaires were collected. Since three random cases in this group could be repeated to equal 50 without significantly altering the results, the number 50 was selected to make correlations between groups. In both groups of parents, the mothers and fathers were divided proportionately the same as the original group. The children's groups were divided proportionately between boys and girls, and respective age levels. All cases exceeding the number 50 in each group were then dropped from the study. Neither of the correlations between parents and their children in the physical science or social science groups was significant.

The physical science group showed a negative correlation of $-.2639$ with only a slight relationship. The social science group, a positive correlation ($.0396$), showed a chance relationship. According to Koenker, a highly dependable relationship would have to be a correlation of at least $.80$ to 1.00 .⁴ This would disprove the hypothesis that a positive and significant correlation exists between parents and their children's attitudes toward the fine arts.

The t test was used to determine significance of the correlations. The obtained value of t was 1.802 with $.10$ the level of probability in the physical science group. In the social science group t was $.227$ with $.80$ the level of probability (see Table 4). The results could have occurred by chance in the physical science group ten times in a hundred; in the social science group, eighty times in a hundred. A highly dependable relationship would have to be one time in a hundred.

The data were further analyzed by correlating children by level with their parents to determine if age could either strengthen or weaken the relationship. There were as many as seventy parents in the social science classification and as few as nine high school children in the physical science group. Groups had to be equalized to make correlations. The number thirty-five was selected because in practice less than thirty cases is not advisable for correlation.⁵ In each group all cases above thirty-five were eliminated, which included parents in the physical sciences and parents in the social sciences. Groups of less than thirty-five repeated scores from random questionnaires until thirty-five cases were obtained. These groups included high school children in physical science with nine, junior high children in physical science with fourteen, intermediate children in physical science with twenty-four, high school children in social science with seventeen, junior high children in social science with twenty-three, and intermediate children in social science with twenty-eight. In the process of equalizing all groups to thirty-five they were kept proportionately the same as the original groups.

⁴Ibid., p. 52.

⁵Ibid., p. 54

It was found that parents and their children correlated insignificantly at all levels. The only positive correlations were between high school children and their parents in both the physical sciences and the social sciences. Junior high and intermediate children correlated negatively with their parents. The actual correlations between parents and children by level, t test results, and probability can be seen in Table 5.

TABLE 5
CORRELATIONS OF CHILDREN BY LEVEL WITH THEIR PARENTS

Group	Correlation	t	p	Significance
<u>Physical Science</u>				
High School vs Parents	.2952	1.808	.10	insignificant
Junior High vs Parents	-.2667	1.610	.10	insignificant
Intermediate vs Parents	-.0651	.403	.70	insignificant
<u>Social Science</u>				
High School vs Parents	.3187	1.840	.10	insignificant
Junior High vs Parents	-.0975	.579	.60	insignificant
Intermediate vs Parents	-.0564	.345	.70	insignificant

Note: Number = 35.

Since all the age groups were insignificant correlations, it is concluded that the age level of the children does not make a significant difference in the correlations even though older children correlated positively and the younger children correlated negatively with their parents.

All children and parents were placed in two categories, the physical sciences and the social sciences. Mean scores were compared between fathers in the physical sciences and those in the social sciences; between mothers in the physical sciences and those in the social sciences; between boys in the physical sciences and those in the social sciences; and between girls

in the physical sciences and those in the social sciences. The means were computed from the total test scores in each group. In all instances the means compared were higher in the social science category than those in the physical science category, which suggests more liberal attitudes toward the fine arts among professors and their families in the social sciences.

The t test was used to see if there was a significant difference between the two categories, and if they could have occurred solely by chance. The means were tested at the .01 level of probability. The mean differences and standard deviations are shown in Table 6. There was a significant difference between the parents in the physical sciences and the social sciences. However, the children had very nearly the same means and there was no significant difference between the two groups. Therefore, parents in the social sciences do have significantly more conservative attitudes than those of the physical sciences. The children do not reflect this difference.

It was further hypothesized that females will have more favorable art attitudes than males. Mothers and girls were compared with fathers and boys in both the physical science and social science groups. In all cases, mothers and girls had higher means than fathers and boys. The observed difference between the means and significance at the .01 level of probability can be seen in Table 6. Girls in both the physical and social sciences groups and mothers in the social science group had significantly higher means than boys and fathers. Mothers in the physical sciences did not have a significantly higher mean than fathers in the physical sciences. Since three groups of females out of four did score significantly higher than males, it is concluded that females do have more liberal attitudes than males.

Fathers were compared with sons and mothers with daughters. Fathers and mothers in the social sciences received higher means than their children, but they were not significant. Children in the physical sciences did have significantly higher means than their parents. This determines the relationship could only have occurred by chance. Since parents in the social sciences had higher means than their children, this disproves the hypothesis that children's art attitudes are always more liberal than their parents.

ANALYSIS OF THE DATA

Studies correlating parents' and children's attitudes usually pertain to social opinions. Such studies generally correlate positively, at least to a fair degree.⁶ On this basis it appeared logical to correlate parental-child attitudes toward the fine arts.

In this study, parents and their children were asked to complete a questionnaire about art. The families were limited to professors, assistant professors, associate professors and their children at the University of Mississippi. It was hoped a "sophisticated" group, rather than a cross

⁶Ibid., p. 52.

TABLE 6

MEANS COMPARED BY GROUP, SEX, AND AGE

Group	Means		Mean Difference	Standard Deviation		Significance .01 Level of Probability
	Physical Science	Social Science		Physical Science	Social Science	
Fathers, Physical vs Social	155.52	174.05	18.54	25.38	40.47	significant
Mothers, Physical vs Social	161.59	194.43	32.84	38.81	33.75	significant
Boys, Physical vs Social	168.23	168.38	.15	33.70	30.92	not significant
Girls, Physical vs Social	180.80	186.83	6.03	37.97	33.35	not significant
	Male	Female		Male	Female	
Fathers vs Mothers, Physical	155.52	161.59	6.07	25.38	38.81	not significant
Fathers vs Mothers, Social	174.06	194.43	20.37	40.47	33.75	significant
Boys vs Girls, Physical	168.23	180.80	12.55	33.70	37.97	significant
Boys vs Girls, Social	168.38	186.83	18.45	30.92	33.35	significant
	Parent	Child		Parent	Child	
Fathers vs Boys, Physical	155.52	168.23	12.71	25.38	33.70	significant
Mothers vs Girls, Physical	161.59	180.80	19.21	38.81	37.97	significant
Fathers vs Boys, Social	174.06	168.38	5.68	40.47	30.92	not significant
Mothers vs Girls, Social	194.43	186.83	7.60	33.75	33.35	not significant

section of the population, would give a stronger correlation in art attitudes. Elliot Eisner states that art attitudes are more positive among a higher socio-economic class, though at times erratic.⁷ This would seem to indicate that professors and their families would have a high correlation in art attitudes.

The individuals asked to answer the questionnaires were given an opportunity to ask questions through follow-up telephone conversations. Once the questionnaires were received and tabulated it was found that artistic attitudes between parents and their children were negative in the physical sciences and positive in the social sciences. Both correlations were insignificant. It may be assumed that art is not close enough to the center of family interest in order to show a strong correlation among family members.

It has been indicated that aesthetic attitudes can be changed by "expert" opinion, or one's information of art. One of the most significant studies in this area, Elliot Eisner's, concluded a definite relationship exists between one's information of art and one's attitude. Two tests were given in his study, one to test the subject's information of art and one his attitude. High school and college students were the subjects. The high school group, an art interested population, received higher scores than the college students who were elementary education majors.⁸ Biettel showed that a "naive group" (non-art majors) had a greater and more favorable change toward art after attending an art class than a "sophisticated group" (art majors). All subjects were college students. The test consisted of the subjects' responses to eleven reproductions. All reproductions had been ranked on art acceptance scale as a basis for scoring. The rank on the scale was determined by a sampling of opinions from a large population.⁹ Thorndike had a group of subjects, a combined group of college undergraduates and teacher's college candidates for a higher degree, view Christmas cards, poetry, colored papers, and pictures of buildings. The tested group did not realize their opinions were going to be measured. The tester, after hearing the subject's response to the Christmas cards, would express an opinion, mostly agreeing with the subject's response, but occasionally disagreeing. A second group of cards were shown later, and the earlier opinions of the tester appeared potent in changing the subject's attitude.¹⁰ On the basis of these three studies, it appears that expert opinion and knowledge of art are of great importance in formulating favorable art attitudes.

⁷Eisner, "The Development of Information and Attitude Toward Art at the Secondary and College Levels," Studies in Art Education, VIII (Autumn, 1966), 58.

⁸Ibid., p. 58

⁹Biettel, "Experimental Studies of the Aesthetic Attitudes of College Students," Research in Art Education, Seventh Yearbook of the National Art Education Association, ed. by Manuel Barkan (Kutztown, Pennsylvania: State Teachers College, 1956), pp. 47-60.

¹⁰Thorndike, "Changing Wants, Interests and Attitudes: The Influence of Occurrence plus Emphatic Reward," Psychology of Wants, Interests and Attitudes (New York: D. Appleton-Century Company, Inc., 1935), pp. 171-190.

It seems possible that outside factors influence children's opinions of art more than their parents, especially considering the lack of significant correlations in this study. It is interesting to note that all subjects in the above studies were high school and college age students. It would be worthwhile to broaden the age group to see if art attitudes could be altered as easily in younger children, older adults, or employed people. It is unclear whether the parents, expert opinion, or the group influence art attitudes the most in children as they grow older.

The families were divided into two classifications, the physical sciences and social sciences. It has been determined in this study that the physical science group is inclined to have more conservative art attitudes than the social sciences. The parents are significantly more liberal in the social sciences than in the physical sciences. Children are not significantly different, which is not surprising since they have not taken a vocational direction as yet. Erland Nelson found that the homes of dentists, journalists, lawyers, farmers, laborers, and commercial men had more conservative attitudes than those of teachers and social workers.¹¹ It might be interesting to study the art attitudes of people by vocational interest to see if they follow the same pattern. This study only indicates a possible direction.

Several answers to questions concerning the characteristics of the physical science and the social science groups were sought. Answers were determined by matching questions to statements on the questionnaire. These statements were then scored by the number of subjects in each group that answered them by responding favorably to the two more positive out of five possible answers. Following are the questions and responses:

1. What percentage of each group (physical science versus social science) owns original or reproductions of art work e.g., oil paintings, sculpture, ceramics? Twenty-five adults in the physical science group and forty-five adults in the social science group answered question 1-13 on the questionnaire most favorably. This is 47 percent in the physical science and 64 percent in the social science.

2. What percentage of each group of adults has children enrolled in art classes? The physical sciences have 23 percent so enrolled over 13 percent in the social sciences.

3. What percentage of each group has children that participate in such art oriented activities as drawing, painting and craft work? Probably because more children in the physical science group are enrolled in art classes, more participate in art activities. Twenty-six percent of these children over 13 percent of the social science children work in art activities.

4. What percentage of adults in each group participates in some form of art oriented activity as a hobby or special interest? Adults in the social sciences more actively participate, 14 percent over 8 percent in the physical sciences.

¹¹Erland Nelson, "Father's Vocation and Certain Student Attitudes," Journal of Abnormal and Social Psychology, XXXIV (April, 1939), 279.

5. What percentage of adults in each group regularly attends art shows and visits art galleries? Twenty-nine percent of the adults in the social sciences regularly visits art museums and 39 percent attends student art exhibits. Only 17 percent of the physical science group attends art museums, while 21 percent visits art exhibits. The probable increase of attending exhibits over museums may be due to the locality. There are student exhibits at the University of Mississippi, but the local museum is small, with little to offer unless a traveling show or local exhibit is present. It is also relatively unpublicized.

6. What percentage of the children in each group regularly attends art shows and visits art galleries? For some reason, more children in the physical sciences than in the social sciences attend art exhibits and museums, the opposite of their parents. Twenty-three percent goes to art museums, and 17 percent visits art exhibits. Only 15 percent of the social-science children attends museums and 22 percent art exhibits.

7. What percentage of adults in each group encourages their children to participate actively in art oriented activities? (Or what percentage of the children feels their parents encourage them to so participate?) These results are nearly equal, with 41 percent in the social science group and 40 percent in the physical science group.

8. What percentage of the adults in each group feels they do well in art activities in view of their background? Again the percentages are very close, with 26 percent in the physical sciences and 27 percent in the social sciences.

9. What percentage of children in each group feels that they do well in art in view of their background? More children in the social sciences (24 percent) feel they do well in art in view of their background than do those in the physical sciences (17 percent).

10. What percentage of the adults feels that knowledge of art is important in the educational process for an individual as a member of today's society? Forty-four percent of the parents in the social sciences feel it is not possible to become well educated without studying art. Twenty-seven percent feel knowledge and appreciation of art are important to understand our culture. The physical science results are 25 and 66 percent respectively.

In most cases, nine out of thirteen, the social science group responded more favorable to the statements on the questionnaire than did the physical science group. The physical science group led the social science group when it involved responses by children, none by adults. More children in the physical sciences were enrolled in art courses, liked arts and crafts activities, and attended art museums and exhibits. However, more children in the social sciences than in the physical sciences felt they did good art in view of their background. In contrast, more adults in the social sciences group than in the physical sciences group collected art, engaged in art as a hobby and attended art museums and exhibits. This makes it understandable how children in the physical sciences correlated negatively and had significantly higher means than their parents. They, in contrast to the social science children, participated more in art activities.

The study of art attitudes has indicated a sexual bias in other studies as well as in this one. Eisner, describing his questionnaire, indicates a female tendency to score higher. Pintner has established that women have higher aesthetic interests than men.¹² F. W. Slee concludes that the female's preference is due to the feminine relationship to the home crafts. When boys like art activities, it is due to the subject matter.¹³

Both fathers and mothers in the social sciences had higher mean scores than did their children. Therefore, all children do not necessarily have more liberal art attitudes than their parents. The children also scored differently than their parents by section on the questionnaires. There is a tendency for younger children to score the highest on the section of the test marked art activities, second on art ability and classes. Parents and older children scored the highest on the questionnaire about artists and their art works.

SUMMARY AND CONCLUSIONS

The purposes of this investigation were (1) to determine whether there is a significant and positive correlation between parents and their children toward the fine arts, (2) to determine whether families grouped in the social sciences had more liberal art attitudes than those in the physical sciences, (3) to determine whether females and children had more liberal art attitudes than males and parents.

The subjects were professors, associate professors, and assistant professors and their families at the University of Mississippi in the spring of 1969. Only children between the ages of eight and eighteen were used. The families were divided into two classifications, the physical sciences and the social sciences.

Information was gathered from a sixty item questionnaire which was mailed to each parent and child. The questionnaire was divided into four parts: (1) satisfaction in art, (2) voluntary activity in art, (3) self-estimate of ability in art, (4) attitude toward arts and artists.

Correlations were made between children and their parents. The physical science group received a negative correlation of $-.2639$ and the social science group a positive correlation of $.0396$. A highly dependable correlation is at least $.80$ to 1.00 . The t test was used to check the level of probability and to see if the correlations were significant. The t was 1.802 with a $.10$ probability in the physical sciences. In the social sciences the t was $.227$ with $.80$ as the probability. Neither of these correlations proved significant.

¹²Rudolf Pintner, "A Comparison of Interests, Abilities and Attitudes," Journal of Abnormal and Social Psychology, XXVII (January-March, 1933), 351.

¹³F. W. Slee, "Feminine Image Factor in Girls' Attitudes to School Subjects," British Journal of Educational Psychology, XXXVII (June, 1968), 14.

Correlations were also made between parents and the children by age level. The intermediate and junior high children correlated negatively with their parents, while high school children correlated positively. After applying the t test, it was found none of the correlations was significant regardless of the age level. The probability was at no more than .10 in all cases, and to be significant it should be at least .01. This disproves the hypothesis that children and parents will correlate positively and significantly toward the fine arts regardless of age level.

It appears strongly possible that art attitudes are not near enough to the family's center of interest to correlate significantly. Past studies correlating children's and parents' attitudes were related to primary attitude objects such as marriage, family, political, and racial opinions. It seems possible that improved education and expert opinion weigh heavily in creating favorable art attitudes. Possible future study includes a comparative analysis between parents and "expert" opinion. Also it would be desirable to note at what age children would be most easily influenced.

Mean scores were compared between adults and children in the physical sciences with adults and children in the social sciences. The t test was checked at the .01 level of probability to see if there was a significant difference between the mean scores. There was a significant difference between adults, with those in the social sciences being more liberal. There was not a significant difference between the children in each group, which is not surprising since they have not taken a vocational direction as yet.

Physical science adults, though more conservative than adults in the social sciences, had more children enrolled in art courses. Also children in this group participated in arts and crafts activities and visited art shows and museums more frequently than children in the social science group.

Means were compared between fathers and mothers, boys and girls, fathers and sons, mothers and daughters in each group (physical science and social science) to see whether females and children had significantly more liberal attitudes than males and adults. Daughters in the physical sciences and mothers and daughters in the social sciences had significantly higher means than sons in the physical sciences, and fathers and sons in the social sciences. The mothers in the physical sciences had a higher mean than the fathers in the physical sciences, but it was not significantly different at the .01 level of probability. Since three groups of females out of four have significantly higher means than comparable male groups, it is concluded that females do have more liberal art attitudes than males. Both boys and girls in the physical sciences had significantly higher means than their parents. The parents in the social sciences received higher means than their children, but they were not significantly different at the .01 level of probability. It is not surprising that children in the physical sciences were significantly higher than their parents considering the percentage that have favorable artistic experiences over those children in the social sciences.

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